Local Work Instruction:
Transocean Polar Pioneer: Blowout Preventer Fluid Discharge – D006

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SCOPE:

This document offers work level instructions for the sampling, testing, and reporting associated with the discharge associated with the blow out preventer (BOP) while operating under the guidelines of the NPDES General Permit (AKG-28-8100), on-board the Transocean *Polar Pioneer.* The BOP fluid is designed to prevent sticking of valves left static for long periods of time and prevent corrosion. The amount of effluent will either be captured on the rig or discharged subsea. When testing the BOP, prior to setting over the well, the fluid is captured in a contained space or area. Once the BOP is deployed, all releases will occur below surface water while preforming function tests

RESPONSIBILITY:

The M-I SWACO NPDES Compliance Specialist is responsible for ensuring that this LWI has been provided to each person involved with this task. Any personnel that may perform the tasks outlined in this document must be familiar with the process, before the rig begins operating under NPDES regulations.

During active drilling operations, the M-I SWACO NPDES Compliance Specialist is responsible for performing the following tasks:

- Document the estimated volume discharged.
- Document the quantity of any chemical additive used.
- Perform and document visual sheen tests.
- If visual sheen tests cannot be performed, collect and document samples for static sheen tests.
- Collect and document samples for pH analysis.

1.0 References:

1.0 NPDES GP AKG-28-8100:

1.0.1 Table 8 – *Effluent Limitations and Monitoring Requirements for Blowout Preventer (D006).*

1.1 Stack-Magic ™ Eco ULTRA BOP Test Fluid Safety Data Sheet.

1.2 Transocean Polar Pioneer Best Management Practices Plan, April 2015.

1.3 Transocean Polar Pioneer Quality Assurance Project Plan, April 2015.

1.4 M-I SWACO (or Misc.) Standard Operating Procedures: 1006, 2001, 2012, 2003, 2008, 3004.

1.5 M-I SWACO LWI - Chemical Inventory and Additives Use Management.

1.6 Shell Exploration & Production Company Alaska Venture 2015 Polar Pioneer Waste Management Plan.

2.0 General Requirements:

2.0 The M-I SWACO NPDES Compliance Specialist is responsible for sampling, testing, and reporting all results to the Shell Environmental Department while operating under the NPDES GP AKG-28-8100.

2.1 Shell Environmental Department is responsible for maintaining and submitting to EPA through the netDMR all discharges sampling, testing and results.

2.2 Transocean is responsible for testing, operating, and repairing of all equipment associated with this discharge.

3.0 Safety Guidelines:

3.0 Before any operations can take place, all personnel involved in this process must complete the following details if required by operator or contractor:

3.0.1 The Pre-Tour Meeting is when daily activities are discussed.

3.0.2 Written Risk Assessment with all involved parties present.

3.0.3 After action review of Risk Assessment.

3.0.4 Transocean Permit to Work.

4.0 Discharge / Task Description:

4.0 The BOP is used only when a well condition, such as uncontrolled release of formation gas or fluid, requires an immediate shut-in of the well to prevent a catastrophic event from occurring.

4.1 Regulations require the BOP to be function tested on a weekly basis and a complete pressure test to be performed bimonthly, unless an alternate time interval is authorized.

4.2 Testing may occur on either the surface (on the deck) or subsurface, after BOP deployment.

4.3 During each function test of the BOP, the manufacturer's mixture of Stack-Magic ™ Eco ULTRA BOP test fluid, water and ethylene glycol is released into the receiving water.

4.4 Function test volumes vary depending on the specific section of the blowout preventer being tested. These volumes range from approximately 1 gallon to approximately 60 gallons; with a total estimated volume of all discharge fluids to be approximately 530 gallons.

4.5 Volumes discharged during testing are measured by flow meter and recorded by Transocean staff on their BOP test report. The Transocean Subsea Engineer will record volumes discharged using the BOP test report.

4.6 During surface testing, BOP fluid will be sent overboard. Uncontaminated BOP fluid that is contained on the deck after testing is completed will be discharged.

4.7 Samples of test fluid used to test the BOP will be collected from the fluid supply tank prior to a function test being initiated.

4.8 Visual inspection of the receiving water near the location of the BOP will be completed during each test. Function test volume estimates will be recorded on the NPDES Master Spreadsheet by the M-I SWACO NPDES Compliance Specialist. All observations will be recorded and reported in the netDMR.

4.9 All test results along with total estimated volume discharged will be recorded on the NPDES Master Spreadsheet by the NPDES Compliance Specialist and will be submitted to the Shell

Environmental Department. If tests are performed at night, a static sheen test will be performed.

4.10 The M-I SWACO NPDES Compliance Specialist will immediately report to Shell Environmental Department, at 907-830-7435, of any upset condition.

5.0 Sampling Plan for Blow Out Preventer (D006):

Effluent Parameter	Effluent Limitations		Monitoring Requirements	
	Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
pH	Report (s.u.)		Monthly	Grab
Free oil	No discharge		Once/discharge	Visual/Grab
Total Volume	Report (gal)		Monthly	Estimate

6.0 Clean-up:

6.0 Follow housekeeping practices.

7.0 Contingency:

7.0 Notify Transocean Subsea Department if any equipment is not working properly.

7.1 If BOP fluid is determined to be outside of allowable limitations it will be contained and properly disposed of.

Revision Log:

Date:	Document History:	Revised/reviewed by:	Location: